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Social structure, health orientation and health behavior

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An attempt has been made to examine the relationship between social structure and medical factors in a framework which links cosmopolitanism to health orientation and behavior. Specifically, this study has attempted to investigate the variations in health knowledge, beliefs, attitudes and behavior among individuals whose social structure varies in terms of cosmopolitanism.

A subset of a random sample of members of the Oregon Region of the Kaiser Permanente Medical Care Program was used. This sample was composed of 2,603 adult members who represent a variety of sociodemographic characteristics.

Two sources of data were utilized: a household interview survey and outpatient medical record information.

The survey was conducted under the supervision of the Kaiser-Permanente Health Services Center for health-related purposes. The survey elicited a variety of health beliefs, attitudes and behavior. Survey questions were used to develop social structure (independent variables) measures. Four measures (family authority, kinship solidarity, friendship solidarity, and community integration) were developed before being combined to create the measure of cosmopolitanism. Other survey questions were used to measure health orientation and behavior (dependent variables). Six variables (disease knowledge, dependency in illness, skepticism of medical science, preventive health orientation, the use of nonscientific self-treatment and the use of nonscientific practitioners); and four control variables (sex, age, education, and social class) were developed. The medical information included information on all out-patient medical care contacts (including telephone calls and letters). These data were used to measure the patterns of utilization variables (face-to-face visits, emergency room visits, and unscheduled visits).

After examining the relationship between independent and dependent variables, controlling for sociodemographic variables, correlation analysis was used to determine to what extent the dimension of cosmopolitanism is related to health orientation and behavior.

Findings show that social structure as it was measured is not significantly related to health orientation and behavior. This might be related to the inadequacy of the theory and the measures.

The results and the implications in the context of the developing nation are discussed.

SOCIAL STRUCTURE, HEALTH ORIENTATION AND HEALTH BEHAVIOR

by

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CHAPTER I

INTRODUCTION

STATEMENT OF THE PROBLEM

In recent years, many studies have shown that there is a link between the type of social structure within which an individual participates and the type of behavior, attitudes and values the individual has toward health and medical care (Paul, 1955; Foster, 1958, Polgar, 1962). In general terms, these studies have shown that such social structure factors as religious beliefs, group values, family organization, and child socialization influence the individual's perceptions of illness and medical care. Stoeckle, Zola, and Davidson (1963) and Zola (1964), for example, studied the effects of ethnic values upon the specific decision to seek medical care and on the differential interpretation of symptoms. Friedson (1961) illustrated the different processes through which people involved in cosmopolitan/local social structures tend to seek diagnosis and care from laymen and medical professionals.

These differences in illness-related attitudes and behaviors reflect differences in the type of social structure in which an individual participates. One well known study which has linked social structure to health-related knowledge,

attitudes and behavior is Edward Suchman's study (1964). According to his findings, individuals who belong to a parochial type of social structure were more likely to have popular health orientations, while those individuals who belong to a cosmopolitan type of social structure were more likely to have a scientific health approach to health and medical care.

Thus, variations in social structure in terms of degree of cosmopolitanism will determine the variability in individual health orientations. On this basis and by building upon Suchman's formulations of the relationship between social structure and health beliefs, attitudes, and behavior, the purpose of this thesis is to examine the variations in health knowledge, attitudes, and behavior among individuals whose social structure varies in terms of the cosmopolitan typology. Specifically, this thesis will address the following questions:

1. Is the more cosmopolitan individual more likely to be more knowledgeable about disease than the less cosmopolitan individual?

2. Is the more cosmopolitan individual more likely to show less dependency in illness than the less cosmopolitan individual?

3. Is the more cosmopolitan individual more likely to be more skeptical about medical care than the less cosmopolitan individual?

4. Is the more cosmopolitan individual more likely to show more preventive health orientation than the less cosmopolitan individual?

5. Is the more cosmopolitan individual less likely to use nonscientific self-treatment and nonscientific practitioners than the less cosmopolitan individual?

6. Is the more cosmopolitan individual more likely to use a more impersonal (i.e., telephone rather than face-to face) approach in seeking medical care, and to use care through scheduling of appointments rather than on a non-scheduled basis (i.e., walking in for care without an appointment or showing up in the emergency room) than the less cosmopolitan individual?

Responses to these questions will help to determine to what extent social structure exerts influence upon the individual's health attitudes, beliefs, and behaviors.

The major theoretical perspectives that relate directly to the type of social structure and the individual's attitudes and behavior is presented next to serve as a framework for reviewing the literature and designing this research. It is a macrosociological theory of social structure which is important to the extent that it shows the influence of social structure upon the individual's attitudes and behavior.

THEORETICAL PERSPECTIVE

A Macrosociolocial Theory of Social Structure

> Social structure is conceptualized as the distributions of a population among social positions in a multidimensional space of positions. This quantitative conception of social structure is the basis for a deductive theory of the macrostructure of social associations in society. The likelihood that people engage in intergroup associations under specifiable structural conditions can be deduced from analytic propositions about structural properties without any assumption about sociopsychological dispositions to establish intergroup associations, indeed, on the assumption that people prefer ingroup relations. Group size governs the probability of intergroup relations, a fact that has paradoxical implications for discrimination by a majority against a minority. Inequality impedes and heterogeneity promotes intergroup relations.

> The major structural condition that governs intergroup relations is the degree of connection of parameters. Intersecting parameters exert structural constraints to participate in intergroup relations; consolidated parameters impede them. The more differentiation of any kind penetrates into the substructures of society, the greater is the probability that extensive social relations integrate various segments in society. (Blau, 1977:26)

The influence of social structure upon human behavior has been the subject of numerous psychological and sociological studies. In general, these studies revolve around the mechanism through which social environment affects personality and shapes individuals' attitudes and behavior (Elder, 1973).

Durkheim (1951), for example, discovered how the incidence of suicide was a function of social structure. In his classic study, Durkheim found that suicide rates differed among sexes, rural-urban areas, military and civilian populations and religious groups. For instance, since the suicide rate for Catholics and Jews was lower than for Protestants, he was led to conclude that in-group bonds of Catholics and Jews, as compared to the values of Protestant individualism, accounted for the differences in the suicide rate. Another classic study, Merton's (1957) study of Rover community in New York, describes two distinct types of individuals whose behavior, attitudes, and beliefs stem from the type of social structure to which they belong. Merton found both cosmopolitan types of persons and parochial types. The cosmopolitan person is characterized as being primarily

involved in affairs that relate to a large urban environment and his attitudes are open to new experiences and values. The parochial person, in contrast, is primarily concerned with his local community and its environs; and his attitudes are most greatly influenced by kinship bonds. Hence, cosmopolitanism/parochialism is included in this thesis as the primary dimension which influences the individual's health attitudes, beliefs and behavior.

REVIEW OF THE LITERATURE

First, the literature is reviewed from the perspective of the independent variables (social structures) with special attention given to the findings related to "local" and "cosmopolitan" social structures, then to the dependent variables (health orientation and health behavior). The theoretical model for this study is reviewed in terms of the relationship between social, cultural and psychological factors and illness/medical care behavior in order to provide linkages between these factors and the individual's medical orientation. Also attention is given to the effect of sociodemographic factors on illness and medical care behavior to determine the need for controlling these factors in the analysis. Finally, the research hypotheses are presented.

Local vs. Cosmopolitan[1]

Sociologists have employed the concepts of social space and reference relationships to distinguish between local, "parochial," in contrast to cosmopolitan social structures. In terms of space and distance, cosmopolitanism is not necessarily geographically separated from the community but is less intimidated by significant others (Thielbar, 1970). Becker (1956) used the term "mental mobility" to describe persons who extend their thoughts beyond their geographical area. Merton (1957) has noted that although some persons live in the larger society, their thoughts may not go beyond the city limits. Cosmpolitanism, as a reference relationship, is less attached to significant others but more oriented toward the outside world. Localism, in contrast, is more oriented toward a small space, more attached to the personal, to kinship, and more bound to the local community (Thielbar, 1970).

The distinction between cosmopolitanism and localism has continued to appear in the literature as an ad hoc interpretation of research findings. Boehm (1931), for example, described that cosmopolitan types of people are

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[1]Source: L. Gerald Thielbar, "On Locals and Cosmopolitans," original paper cited in Gregory P. Stone & Harvey A. Farberman, Social Psychology Through Symbolic Interaction, Ginn-Blaisdell, a Xerox Company, 1970, pp. 259-275.

alienated from primary communal relationships, while the parochial person is integrated within the community. He also characterized the cosmpolitan type as a person who is more likely to be oriented toward intellectual pursuits and social perspectives. According to Boehm's notions, cosmopolitanism is a form of social participation where thoughts exceed the local community and there is a revolutionary tendency. A parochial person's thoughts are limited and may never penetrate the boundaries of the local community. Mannheim (1936), on the one hand, characterized cosmopolitan persons as intellectual and less attached to the local community. Bierstedt (1963), like Mannheim, characterized cosmopolitans as a highly mobilized group of academicians who were disposed toward the world outside their local community. Zimmerman (1938), on the other hand, found the typologies of cosmopolitanism and parochialism helpful in the study of rural communities.

Additionally, Stone and Form (1953) have made a distinction between parochial and cosmopolitan social structures. They found that persons who belong to cosmoplitan social structures were more likely to be open, e.g., preferring to involve themselves in international affairs rather than local affairs.

Socioeconomic status is also held to vary directly with the degree of cosmopolitanism. Mill (1956) found that persons with high socioeconomic status were more likely to

belong to the cosmopolitan social structure. Stone (1962), using Warner's (1949) index of status characteristics, discovered that people in the lower social classes were associated with parochial social structure, while upper class persons were related to cosmopolitan social structure. In addition, knowledge is found to be associated with cosmopolitanism. Sykes (1951) reported that those who had a high level of education were more likely to be oriented toward the outside world rather than toward the local community. These patterns of local orientations failed to disappear even when the effect of age, sex, and income was controlled (Dobriner, 1958).

Gouldner (1957-58), in his study of Antioch college, found types of parochial and cosmopolitan people. Those people who belonged to the cosmopolitan social structure were characterized as either outsiders or "empire builders." In contrast, those persons who belonged to the parochial social structure were characterized as either dedicated, "bureaucratic," or "homeguard" and "elders." In general, parochial persons could be characterized in terms of their loyalty to their hiring organization. They were less likely to commit themselves to professional skills and were more oriented toward reference groups within their college community. Furthermore, some parochial persons were found to be more loyal to their community of residence than to their organization of employment. They were more likely to

submit to the organizational rules in order to adjust to the community pressures. Other parochial persons restricted their interest to the college organization. Cosmopolitan persons, however, were more likely to be primarily oriented toward academic research and scientific communities. The major conclusion is that the value patterns of cosmopolitanism/parochialism comprise a life-style with different dimensions which influence the individual's attitudes and behavior.

Health Orientation and Health Behavior

Health and illness behavior may be defined in terms of three components: (1) health behavior is any activity undertaken by a person believing himself to be healthy for the purpose of preventing disease or detecting it in an asymptomatic stage; (2) illness behavior is any activity undertaken by a person who feels ill in order to define the state of his health and to discover a suitable remedy; (3) sick role behavior is any activity undertaken by those who consider themselves ill for the purpose of getting well (Kasal & Cobb, 1966).

Mechanic and Volkart (1961) have defined illness behavior as "the way in which symptoms are perceived, evaluated, and acted upon by persons who recognize some pain, discomfort, or other signs of organic malfunction." Regarding the variability of response to illness and seeking medical care, they added that

> two persons having much the same symptoms, clinically considered, may behave quite differently. One may become concerned immediately and seek medical aid while the other may ignore the symptoms and not consider seeking treatment at all.

The different patterns of health orientation and illness behavior represent the dependent variables of this study. In relation to independent variables (social structure), Suchman has stated that illness behavior is

> constrained by the expectation and directives of the social group which bear significance for the individual. Medically relevant behavior, rather than being an exception, is, for many important reasons, a type of behavior on which the constraining mould of society rests heavily. Illness is a frequently recurring phenomenon which generates fundamental concerns and anxieties and which intimately involves many other people besides the sick individual. As a consequence, significant group norms and mores have evolved which strongly influence individual attitudes and behavior in the health area. (Suchman, 1965a:2-3)

Relationship to Age, Sex, and Ethnicity. The literature has shown that the factors of age, sex, and ethnicity are significantly associated with illness behavior and medical care. For example, old people were found to be more optimistic about their health status than women and young people (Maddox, 1964; Thompson & Tauber). Females were found to have a higher proportion of medical and dental visits than males. Also, females had a higher rate of hospital admissions than males, even when the admissions for pregnancy are excluded, while men had fewer admissions and sought hospitalization only for serious conditions (Lerner, 1961). In another study, blacks and women were found to show more concern about their health and use a high proportion of free

health services (Borsky & Sagan, 1959). Additionally, delay in seeking cancer treatment was highest among older people, people with a low education status, and males (Antonovsky & Hartman, 1974). Hetherington and Hopkins (1961) found that middle-aged persons, females, and those in the highest education and occupational categories were more likely to be highly sensitive to their symptoms.

Ethnicity is also related to the variations in reaction to illness and seeking out medical care. Saunders (1954) found that "Anglos" and "Spanish" speaking persons were different in their attitudes toward illness and medical care. Anglos were more likely to be oriented toward a scientific approach to health and medical care. In contrast, Spanish speaking people were more likely to be oriented toward a traditional (i.e., popular) approach to health and medical care and seek help from their families during illness. Among Mexican-Americans some symptoms were considered to indicate health problems, although physicians did not confirm that conclusion. However, other symptoms that were seen by the physician as serious were not seen as serious by the Mexican-American community (Clark, 1959). In regard to reporting symptoms, Italian and Jewish people were found to report more symptoms than other people (Croog, 1961). Also, Jewish students showed a higher proportion of illness behavior patterns than either Protestant or Catholic students. They showed a higher rate of utilization of psychiatric

facilities than the other students (Scheff & Silverman, 1966; Segal et al., 1965; Srole et al., 1962). In general, from these studies, it can be seen that sex, age, ethnic and cultural values markedly influence illness and medical care behavior. However, the effects of sex and age were controlled in this study to determine to what extent sociocultural background influences the individual's health orientation/ health behavior.

Relationship to Socioeconomic Status. It appears from the literature that response to illness and medical care is significantly related to socioeconomic status. Evidence from Koos's (1954) study showed that response to illness varied by social class. According to his findings, the higher the social class, the greater the sensitivity to symptoms. Also, Elder (1973) found that higher social class people were more likely to be more knowledgeable about their symptoms. In contrast, lower social class people were found to believe that their psychiatric symptoms were caused by organic illness (Myers & Bertram, 1959). Lower class people were found to reduce their activities and consult a physician only when their health condition was serious. Pessimism, alienation, and skepticism about health also were more likely to be associated with low income and low education (Ludwing & Gibson, 1969; Hyman, 1970). However, people with high income and educational status showed positive attitudes toward

physicians and revealed fewer face-to-face contacts with health care providers (Richardson, 1970).

Financial considerations have been found to affect the way sick people report symptoms to the physician. The lower the social class, the less likely a person was to report his symptoms to the physician in a specific way (Koos, 1954). Also, low social class patients with psychological problems and symptoms were found to be less likely to be cooperative with the psychotherapist. For instance, some studies have concluded that lower social class patients were less likely to discuss their personal problems and were less likely to come to psychotherapy voluntarily (Brill & Storrow, 1960).

In short, from these studies which examined the relationship between social class and illness behavior, it appears that socioeconomic status is significantly related to illness behavior and medical care orientation. In regard to this study, the significant relationship between socio-economic status and illness behavior provides evidence that socioeconomic status should be controlled in the analysis.

A THEORETICAL MODEL

The theoretical model which provides the context for this study is derived from the work of Edward Suchman (1965). Suchman has separated illness and medical care into different stages, and he has linked them with social and cultural as

well as with psychological factors (see Figure 1). These stages are:

1. Symptom experience
2. Assumption of the sick role
3. Medical care contacts
4. Dependent-patient role
5. Recovery and rehabilitation.

The symptom experience state is when the individual who feels ill evaluates his symptoms; it is a decision-making process. The individual may deny illness and delay seeking care (Kutner & Gorden, 1961). Also, during this stage, the sick person may engage in self-treatment to discover suitable remedies for his symptoms (Coe, 1970).

The assumption of the sick role stage begins when the potential patient starts to seek information and advice from others, particularly from those who associate with him. In other words,

> illness becomes a social phenomenon because the sick person seeks agreement from significant others that he is sick and should be excused from his regular duties. As one would expect, initial contacts are often made by the sick person first with others with whom he has close ties, usually a spouse or family, perhaps friends. Many individuals seek professional help at once, often upon the advice of family or friends. Others may continue self-treatment and try various remedies suggested by others concerned for the individual's health. Here patent medicines, home remedies, traditional 'cures,' etc., are likely to be employed. (Coe, 1970:109).

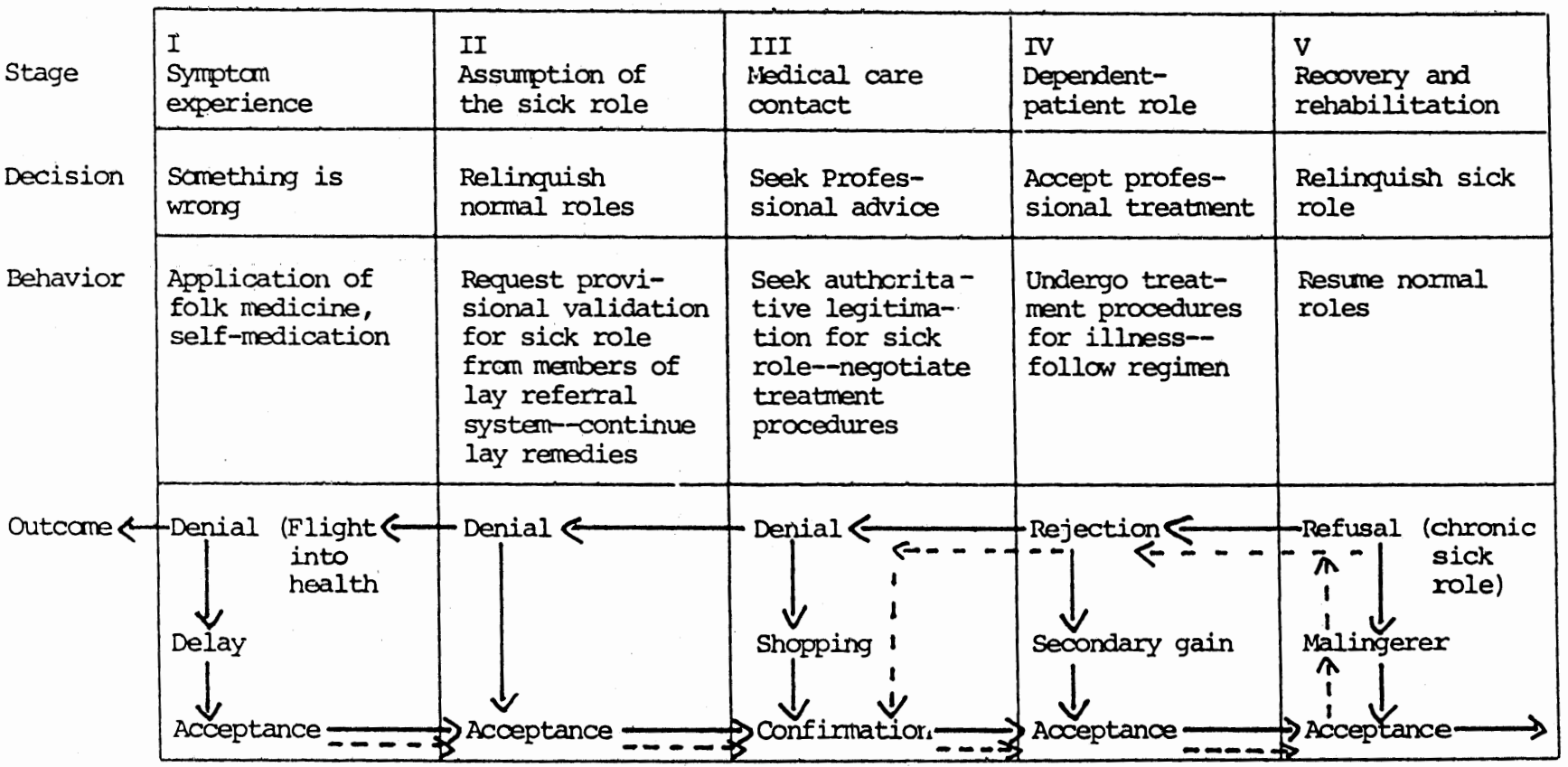

Figure 1. Suchman's (1965) Sequences and Stages of Illness and Medical Care.

Source: Adapted from Rodney M. Coe, Sociology of Medicine, Copyright 1970, 1978 by McGraw-Hill, Inc.

The provisional validation of the sick role by others leads into the third stage--the medical care contact stage.

The medical care contact stage is when the sick individual moves from the lay care system to the professional care system where he may be granted the validity for his claims. At this stage social group and knowledge availability will determine the individual's future medical behavior and progress toward health.

The dependent-patient role stage is when a decision is reached to treat the symptoms clinically. However, the sick individual may assume dependency upon medical care and continue to enjoy secondary gain (Parson, 1951). During this phase, because of the incongruence between physician and patient approaches to medical care, conflict is more likely to occur which will interfere with the treatment process (Wilson, 1963).

During the recovery or rehabilitation stage, the decision is made to relinquish the patient role. During this stage, medical treatment comes to an end and the patient returns to function with his social system.

These five stages represent the patterns of the individual's illness behavior and his decisions to seek medical care. The sociological significance, however, which concerns this study is the decision-making process which involves not only the behavioral patterns but also the magnitude of influence of social structure upon this decision-making. For

example, individuals from parochial social structure are more likely to seek medical advice from the lay referral system, remaining in the first two stages of illness behavior. In contrast, individuals from cosmopolitan social structure are more likely to move rapidly through the first two stages. As Figure 2 shows, the length of time spent in each stage is different for parochial and cosmopolitan individuals. To understand individuals who belong to parochial social structure, the pre-medical contacts are the most important, while for individuals who belong to cosmopolitan social structure, the post-medical care contacts are the most important. However, most of the individuals from parochial social structure may never enter the medical care contact stage (Wolinsky, 1980).

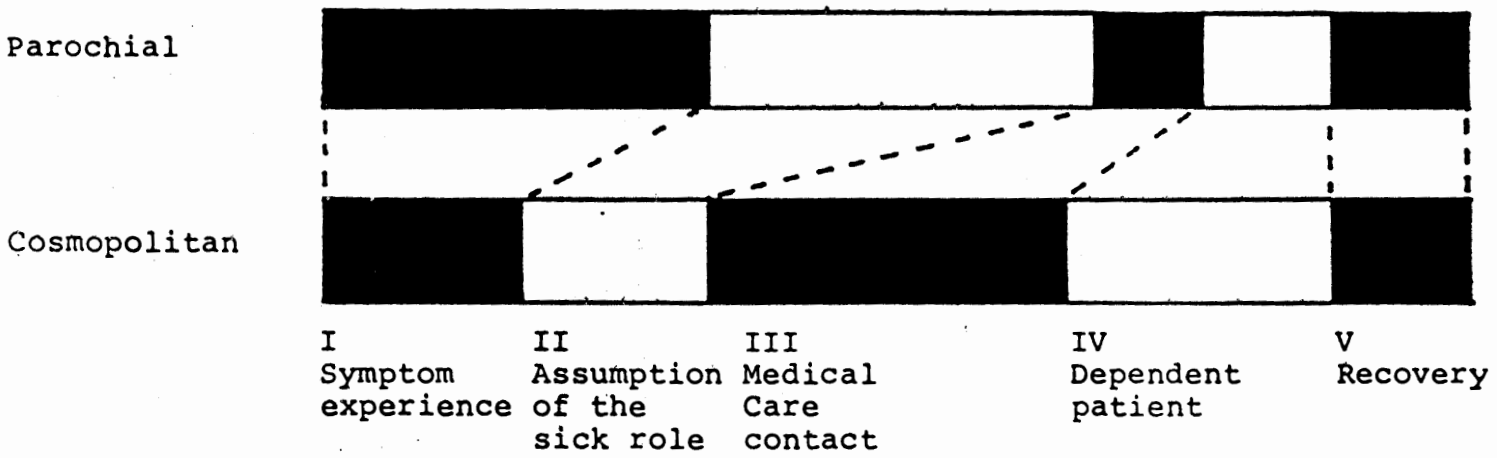

Figure 2. Comparative Importance of the Five Stages For Parochial and Cosmopolitan Individuals.

Source: Adapted from Fredric D. Wolinsky, The Sociology of Health, copyright 1980 by Fredric D. Wolinsky.

SOCIAL STRUCTURE, HEALTH ORIENTATION AND HEALTH BEHAVIOR

The relationship between social structure and medical orientation has been previously recognized by some studies. Zborowski (1952) has investigated the role of cultural differences in illness behavior. In his study of ethnic reactions to pain, he observed some concern with pain and symptoms among Americans of Italian heritage, while Jewish American patients exhibit greater concern with pain and its significance for their health and welfare. However, American patients show further orientation anxiety about their symptoms and pain. The reactions to pain and symptoms among Jews and Italians as well as the American patients is also supported by Zola's (1962-63) studies which compared the approach of Italian, Irish and Anglo Saxon American patients to seeking medical care. He found that medical care orientation varied significantly among Italian, Irish, and Anglo-Saxon Americans. Italians, for example, did not seek medical care unless their symptoms interfered with their social and personal relations. Irish-Americans, in contrast, tended to seek medical care only after their symptoms interfered with their daily activities.

Other studies have maintained that to some extent social structure plays an important role in the patterns of illness behavior and medical care. Edward Suchman (1964) asserted that parochial individuals characterized as traditional, shared, affiliated, and closed, while cosmopolitan individuals

tend to be more progressive, individualistic, instrumental and open. In relation to medical care, Suchman found that those individuals who belong to cosmopolitan social structure were likely to show less dependency in illness, more knowledge about disease, and less skepticism about medical providers. In contrast, those individuals who belong to parochial social structure were likely to show more dependency in illness, less disease knowledge and more skepticism of medical providers (see also Suchman 1964, 1965b, 1968). Friedson (1961) in his study also found that people with cosmopolitan social structure had different criteria to evaluate physicians than those belonging to local social structure.

Pope, et al. (1971) examined the differential use of telephone vs. walk-in for the purpose of presenting new symptoms among persons characterized as cosmopolitan vs. parochial. The findings of this study indicate that a high proportion of those characterized as parochial use "walk-in" rather than the telephone to report their symptoms to the physician. In contrast, high proportions of those characterized as cosmopolitan use the telephone rather than "walk-in" to report their symptoms.

The studies which have been reviewed dealt with only a small number of variables or focused on small, select populations. Also, some of this research was further limited by medical care data obtained only through surveys or through

other methods of self-reporting. Additionally, for most of these studies, comprehensive medical records simply were not available (Freeborn, et al., 1974). However, these reports have shown that to some extent medical care orientation is affected by social structure dimensions. More research is needed to determine to what extent this dimension can be generalized in different illness situations.

RESEARCH HYPOTHESES

The following hypotheses derive from the review of the literature.

1. The more cosmopolitan individual is more likely to be more knowledgeable about disease than the less cosmopolitan individual.

2. The more cosmopolitan individual is less likely to show dependency during illness than the less cosmopolitan individual.

3. The more cosmopolitan individual is more likely to be skeptical about medical care than the less cosmopolitan individual.

4. The more cosmopolitan individual is more likely to show more preventive health orientation than the less cosmopolitan individual.

5. The more cosmopolitan individual is less likely to use nonscientific self-treatment and nonscientific practitioners than the less cosmopolitan individual.

6. The more cosmopolitan individual is more likely to use a more impersonal (i.e., telephone rather than face-to-face) approach in seeking medical care, and to use care through scheduling of appointments rather than on a non-scheduled basis (i.e., walking in for care without an appointment or showing up in the emergency room) than the less cosmopolitan individual.

CHAPTER II

METHODOLOGY

STUDY POPULATION

The study population and the data for this project derive from the Oregon Region of the Kaiser Permanente Medical Care Program (KPMCP), an organization established in 1943 to provide health services for its subscribers. This prepaid medical plan enrolls about 250,000 members, which represents about 20 percent of the population of the Portland Metropolitan area. The Kaiser Permanente population represents a broad range of sociodemographic and socioeconomic characteristics.

For health-related research purposes, a 5 percent random sample of health subscribers was selected in 1967 by the Kaiser Permanente Health Services Research Center (HSRC) for ongoing studies. A subset of the HSRC 5 percent sample provided the population for this investigation. This population comprises 2,603 adult members, including 1044 married couples, enrolled in the KPMCP for the full two calendar years of 1969 and 1970.

DATA SOURCES

There are two sources of data for this project, a personal interview survey and medical records (outpatient information).

Household Interview Survey

Information was obtained from 2,603 adult members from 1,529 families by means of personal household interviews.

The survey included three different types of data:

1. Objective or factual information, such as the demographic characteristics of the groups and individuals enrolled in the plan.

2. Information about behavior of individual group members as well as the interaction within the group and the like.

3. Perceptual or attitudinal data for adult members, including a wide variety of beliefs, opinions, and perceptions about things related to medicine, medical care, and one's personal situation (Pope, 1976).

Outpatient Information

The outpatient information included detailed information on all outpatient medical care contacts (including telephone calls and letters). The medical record data have been linked with survey data for this study population.

MEASURES

Social Structure

Social structure measures were described in terms of the cosmopolitan typology. However, rather than creating a dichotomy of "cosmopolitan" and "local" (parochial), this study conceptualized cosmopolitanism as a continuum and defines the measures in this way. Measures of family authority, kinship solidarity, friendship solidarity, and community integration have been developed for use in creating a measure of cosmoplitanism. These measures were separately constructed before being combined to create the measure of cosmopolitanism. The measure of family authority was available, however, only for married couples. (Hence, as is pointed out below, the final index of cosmopolitanism includes four variables for families composed of a married pair, and three variables for other families.) Each of these items was measured at the ordinal level.

Family Authority. Family authority refers to the patterns of husband/wife decision-making and role behavior within the nuclear family. It was measured by an index combining twelve items from the survey questionnaire. These items were obtained from the list of decision-making characteristics which related to the concept of family authority. Each married respondent was asked specifically to indicate if the husband or wife is more likely to make the following decisions: where to have the car repaired, where to buy groceries, where to bank, planning the menu for when company

is coming, what car to buy, what home furnishings to buy, how to budget the family money, what life insurance to buy, what part of town to live in, what job the husband should take, whether the wife should work, and who makes the final decision.

The index was developed by summing the number of responses to the items which are congruent with traditional role differentiation between husbands and wives. In order to reduce the number of categories for use in cross tabulational analysis, the distribution of scores was collapsed into three levels of family authority (see Table I).

TABLE I

DISTRIBUTION OF RESPONDENTS ON FAMILY AUTHORITY INDEX

	N	%
Low	536	25.8
Medium	1056	50.7
High	490	23.5
Total	2082	(100.0)

Note: N does not equal the total population because only married persons for whom complete data were available are included.

Kinship Solidarity. Kinship solidarity refers to the degree of the individual's interaction and attachment to

the extended family or kinship system; feeling bonded to members of the extended family and the level of interaction with them define solidarity. It was measured by an index combining five items obtained from the survey questionnaire. These items are associated with the concept of kinship solidarity. Respondents were asked to indicate whether they have a strong sense of family ties (very strong, fairly strong, not very strong), how many families who are relatives live nearby (0-6, and over), how many of these families they see often, how many other families who are relatives of theirs live within a day's drive (0-6, and over), and how many of these families they see often.

The index was developed by multiplying the number of families by the number seen frequently and adding the value of the score of family ties. In order to reduce the number of categories the distribution of scores was collapsed into four levels of kinship solidarity (see Table II).

TABLE II

DISTRIBUTION OF RESPONDENTS ON KINSHIP SOLIDARITY INDEX

		N	%
Low	1	629	25.4
	2	567	22.9
	3	641	25.9
High	4	638	25.8
Total		(2475)	(100.0)

Note: N does not equal the total population because of missing data.

Friendship solidarity. Friendship solidarity refers to patterns of friendship relations, the extensity and intensity of friendship relations and the extent to which friendships persist over long time periods. It was measured by an index combining three items obtained from the survey questionnaire. Specificially, respondents were asked how many close friends they had, how often they get in touch with close friends (very often, fairly often, occasionally, seldom), and whether they grew up in the same place with their friends (yes/no).

The index was developed by multiplying the number of friends by the number of interactions and multiplying the value of that score by 2 if the respondent grew up in the same place with their friends. Then, for use in the cross tabulational analysis, the distributions of scores were collapsed into three categories (see Table III).

TABLE III

DISTRIBUTION OF RESPONDENTS ON FRIENDSHIP SOLIDARITY INDEX

	N	%
Low	612	30.5
Medium	855	42.6
High	540	26.9
Total	(2007)	(100.0)

Note: N does not equal the total population because of missing data.

Community integration. Community integration was measured by an index which combines two questions obtained from the survey questionnaire. One question asked respondents specifically how often they attend organizational meetings (other than churches or synagogues) within the local community (regularly, occasionally, seldom, never). The other question asked how often the respondents attend church (more than once a week, about once weekly, several times a month, about once a month, a few times a year, never).

The index was developed by summing the value of the score of organization attendance and the value of the score of church attendance. As a result, an ordinal level community integration index was produced (see Table IV).

TABLE IV

DISTRIBUTION OF RESPONDENTS ON COMMUNITY INTEGRATION INDEX

		N	%
Low	0	918	39.0
	1	555	22.0
	2	511	20.3
High	3	471	18.7
Total		(2455)	(100.0)

Note: N does not equal the total population because of missing data.

Index of cosmopolitanism. Cosmopolitanism was measured by an index which combined scores for the four indices of social group structure. The first step in constructing the index of cosmopolitanism was to combine scores of the indices of kinship solidarity, friendship solidarity and community integration into a composite index[2]--which become the index of cosmopolitanism for persons without spouses (see Appendix, Table A). For married persons, the next step was to combine the composite index with family authority. This was accomplished by creating the matrix shown in Table B in the

[2]The variables were weighted equally when they were combined in the cosmopolitanism index.

appendix and combining index scores as shown there. The final distribution for the total sample is given in Table V (labeled "adjusted" to indicate that the married respondents with four components are included with the nonmarried, with three components, in computing the measure of cosmopolitanism). Table XIV shows correlations among components of the index and their relation to the total scale score.

TABLE V

DISTRIBUTION OF RESPONDENTS ON INDEX OF COSMOPOLITANISM (ADJUSTED)

	N	%
Low	708	30.1
Medium	798	33.9
High	846	36.0
Total	(2357)	(100.0)

Note: N does not equal the total population because of missing data.

Health Orientation and Health Behavior

In this study, six different variables (disease knowledge, dependency in illness, skepticism of medical science, preventive health behavior, nonscientific self-treatment, and the use of nonscientific practitioners) were developed from survey data to measure health beliefs, attitudes and behavior. Medical record data were used to measure the extent to which face-to-face contact with providers occurred, and the extent to which services were obtained on an unscheduled basis. The survey measures will be presented first followed by the measures derived from medical records.

Disease knowledge. Disease knowledge refers to the individual's ability to evaluate and interpret the symptoms of significant diseases. Six items from the survey questionnaire reflect disease knowledge and measure to what extent the individual is knowledgeable about diseases and symptoms. Specifically, four items asked the respondent to evaluate the following symptoms: lump/discolored skin, shortness of breath, weight loss, and a persistent cough. The respondent was given the option either to consult the doctor for these significant symptoms or to delay. The other two items also measured disease knowledge. One asked the respondent to indicate how well he/she was informed about health and medicine (better informed than most people/less informed/about the same). The other asked the respondent whether he/she believed that using home remedies would reduce the need to use a physician's services (agree/disagree).

A value of one was assigned for those who indicated for each symptom that they should consult the doctor, that they were better informed about health, and that they disagreed that using home remedies would reduce the need to see the doctor. These scores were summed to produce the measure of disease knowledge. For the cross tabulational analysis, the distributions of scores were collapsed into two categories (see Table VI).

Dependency in illness. Dependency in illness refers to the individual's tendency to rely upon others and his/her desire to be supported and helped during illness. Nine

TABLE VI

DISTRIBUTION OF RESPONDENTS ON DISEASE KNOWLEDGE INDEX

	N	%
Low	1011	40.1
High	1513	59.9
Total	(2524)	(100.0)

Note: N does not equal the total population because of missing data.

items measuring dependency in illness were derived from the survey questionnaire. One asked the respondent to indicate how long he/she waits before calling the doctor (short vs. long / depends) when experiencing illness. The other eight items asked the respondent what he/she usually does when feeling ill: go to bed (yes/no), keep to self (yes/no), left alone (yes/no), take it easier (yes/no), go to doctor (yes/no), keep going (yes/no), someone looks after (yes/no), and give up activities (yes/no). A value of one was assigned to each answer that implies dependency and summed scores of the nine items resulted in an ordinal level dependency index. For cross tabulational analysis, the distribution was collapsed into three categories (see Table VII).

TABLE VII

DISTRIBUTION OF RESPONDENTS ON DEPENDENCY IN ILLNESS INDEX

	N	&
Low	596	23.7
Medium	1234	49.1
High	683	27.2
Total	(2516)	(100.0)

Note: N does not equal the total population because of missing data.

Skepticism of medical science. Skepticism of medical science was measured dichotomously. Respondents were asked whether they agreed or disagreed that "there are some conditions for which medical science will never find a cure." Respondents were coded as having skepticism if they agreed that medical science will never find cures for all conditions.

Preventive health orientation. This measure was based on responses to the survey questions, "Do you get a physical exam every year or two if you are feeling all right? (yes/ no)," "Do you go to the dentist just for a dental examination? (yes/ no," and "Do you think a person should get a physical exam every year or so even if he is feeling all right? (yes/no)." A value of one was assigned for each (positive) answer that implies preventive health orientation and summed scores resulted in an ordinal level index. For cross tabulational analysis, the distribution was collapsed into three categories (see Table VIII).

TABLE VIII

DISTRIBUTION OF RESPONDENTS ON PREVENTIVE HEALTH BEHAVIOR INDEX

	N	%
Low	601	23.5
Medium	1038	40.7
High	915	35.8
Total	(2554)	(100.0)

Note: N does not equal the total population because of missing data.

Nonscientific self-treatment. Five items reflecting the use of nonscientific self-treatment were derived from the survey questionnaire. Respondents were asked whether they patronized health food stores (yes/no), took nonprescribed medicine (yes/no), used special home remedies (yes/no), took nonprescribed vitamins (yes/no), and used food supplements (yes/no). A value of one was assigned for each positive answer. Then, the positive answers for the five items were summed to produce the measure. The distribution of scores was collapsed into three categories (see Table IX) for cross tabulational analysis.

TABLE IX

DISTRIBUTION OF RESPONDENTS ON NONSCIENTIFIC SELF-TREATMENT INDEX

	N	%
Low	932	36.7
Medium	920	36.1
High	693	27.2
Total	(2545)	(100.0)

Note: N does not equal the total population because of missing data.

The Use of Nonscientific Practitioners. One question in the survey asked about the use of practitioners not recognized by modern medicine: chiropractors, naturopaths, and faith healers. Very few reported using naturopaths or faith healers; most used only chiropractors. Hence, respondents were dichotomized into users (of any one or more of these non-physicians) and nonusers, as shown in Table X.

TABLE X

DISTRIBUTION OF RESPONDENTS ON THE USE OF NONSCIENTIFIC PRACTITIONERS

	N	%
Nonusers	2143	82.5
Users	455	17.5
Total	(2598)	(100.)

Note: N does not equal the total population because of missing data.

Patterns of Utilization. Three variables (face-to-face contacts, emergency room visits, and unscheduled visits) were developed to measure respondents' tendencies to seek face-to-face contacts with health providers and to use services on a scheduled vs. unscheduled basis. The former was measured by calculating the proportion of total contacts that are face-to face encounters with providers. Two measures were used for the latter. One was determined by calculating the proportion of total face-to-face contacts that take place in the emergency room (and after-hours clinics), and the second by calculating the proportion of all doctor office visits that are unscheduled visits. The distributions on these three variables were collapsed on the basis of "natural" cutting points (or according to how the distribution clustered) so as to produce roughly equivalent distribution of the population across the categories. Tables XI-XIII below show the distribution for the collapsed measure.

TABLE XI

DISTRIBUTION OF RESPONDENTS ON FACE-TO-FACE CONTACTS

		N	%
Low	1	330	13.5
	2	717	29.3
	3	837	34.2
High	4	563	23.0
Total		(2447)	(100.0)

Note: N does not equal the total population because of

TABLE XII

DISTRIBUTION OF RESPONDENTS ON
EMEGENCY ROOM VISITS

	N	%
Low	1189	47.5
Medium	641	25.6
High	675	26.9
Total	(2505)	(100.0)

Note: N does not equal the total population because of missing data.

TABLE XIII

DISTRIBUTION OF RESPONDENTS ON
UNSCHEDULED VISITS

		N	%
Low	1	398	16.2
	2	491	20.0
	3	476	19.5
	4	370	15.1
High	5	717	29.2
Total		(2452)	(100.0)

Note: N does not equal the total population because of missing data.

Sociodemographic (Control) Variables. The literature has shown that sociodemographic and socioeconomic status significantly influences health orientation and health behavior. Hence, the variables of sex, age, education, and social class (self-reported as upper, upper middle, middle working, lower) were included in the analysis as control variables.[3] The variables were obtained from the household survey or from administration records.

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[3]Sociodemographic variables were coded as follows:

Variable	Code
Sex:	1 - Male 2 - Female
Age:	Age in years
Education:	1 - Low (less than 8 years) ↓ 7 - High (college/post-graduate)
SES:	1 - High (upper class) ↓ 5 - Low (lower class)

THE ANALYSIS

First, a brief summary of the sociodemographic characteristics of the respondents will be presented in order to provide more understanding of the study population. The relationships between sociodemographic variables and health orientation/health behavior are described to provide evidence for the use of sociodemographic variables as control variables in the analysis. Then the independent variable (cosmopolitanism) and its components (kinship solidarity, friendship solidarity, community integration, family authority structure) are examined in relation to each of the dependent variables, first without the control variables and then with them.

The analysis was first performed using cross tabulations (which are presented in the appendix). Then, a correlational analysis was performed,[4] which for the sake of efficiency is used here in presented data, along with an analysis of variance for comparing mean values on the utilization-based measure.

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[4]The variables are ordinal level, but they are treated as if they were interval level. This violation of assumptions for correlational statistics has become something of a convention in sociological research and is not considered serious here since the purpose is to discover the existence of relationships and not the precise numerical value of the relationships.

CHAPTER III

FINDINGS

SOCIODEMOGRAPHIC CHARACTERISTICS

Slightly less than 48 percent of respondents are males. The youngest age group of respondents is under 40 years, the middle age group is 40-60 years, and the oldest group is over 60 years. In terms of education, 31 percent of the respondents had completed less than four years of high school, 29 percent completed high school, and 30 percent had some college education. According to respondents' self-reported social class status, 53 percent are middle class, 28 percent working class (or, rarely, lower class), and 18 percent are upper middle class (or, rarely, upper class).

INTER-RELATIONSHIPS AMONG SOCIAL STRUCTURE MEASURES

Table XIV presents the zero order correlation among social structure measures. Family authority is unrelated to either kindship solidarity, friendship solidarity, or community integration but is related to cosmopolitanism. Individuals who belong to family structure characterized by high solidarity are more likely to be more oriented toward low cosmopolitanism.

Kinship solidarity is significantly correlated with friendship solidarity, community integration and cosmopolitanism. Individuals who belong to either kinship or friendship structure characterized by high solidarity, or to community structure characterized by high integration, are more likely to be more oriented toward low cosmopolitanism.

Friendship solidarity is significantly correlated with community integration and cosmopolitanism. Individuals who belong to the community structure characterized by high integration are less likely to be oriented toward cosmopolitanism.

Thus, Table XIV shows that social structure measures are correlated significantly enough to suggest that they are measuring different aspects of social structure.

TABLE XIV

CORRELATIONS BETWEEN SOCIAL STRUCTURE MEASURES

	Family Authority	Kinship Solidarity	Friendship Solidarity	Community Integration
Kinship Solidarity	.009			
Friendship Solidarity	-.007	.168***		
Community Integration	-.028	.070***	.171***	
Cosmopolitanism	-.611***	-.438***	-.469***	-.469***

*Significant at .05 level
**Significant at .01 level
***Significant at .001 level

INTER-RELATIONSHIPS AMONG SOCIODEMOGRAPHIC VARIABLES AND COSMOPOLITANISM MEASURES

Correlations between sociodemographic variables and cosmopolitanism measures are displayed in Table XV. As Table XV shows, family authority is significantly correlated with the variables of sex and age. Men and younger individuals are more likely to belong to family structure characterized by high authority. Family authority is not related to education or social class.

Kinship solidarity is significantly correlated with sex and age. Women and younger individuals are more likely to belong to a kinship system characterized by high solidarity. Kinship solidarity is unrelated to education or social class.

Friendship solidarity is unrelated to the sex variable but is significantly correlated with age, education, and social class. Younger individuals, those with higher education, and those with lower social class status are more likely to belong to friendship structure characterized by high solidarity.

Community integration is significantly correlated with the variables of sex, age, education and social class. Women, older individuals and the higher education individuals as well as those with higher social class status are more likely to belong to a community structure chacterized by high integration.

The index of cosmopolitanism is unrelated to sex but is significantly correlated with age, education and social

TABLE XV

CORRELATIONS BETWEEN COSMOPOLITAN MEASURES AND SOCIODEMOGRAPHIC VARIABLES

Sociodemographic Variables[a]	Components of Cosmopolitan Index				Index of Cosmopolitanism[b]
	Family Authority	Kinship Solidarity	Friendship Solidarity	Community Integration	
Sex	-.087***	.087***	-.003	.088**	.000
Age	-.068***	-.076***	-.186**	.050**	.101***
Education	-.020	-.018	.194***	.185**	-.111***
Social Class	.008	-.012	-.114***	-.109**	.077***

*Significant at .05 level
**Significant at .01 level
***Significant at .001 level

[a] See footnote, page 38 for coding

[b] The components of the Index of Cosmopolitanism are combined in a manner such that low scores on the components result in high scores on cosmopolitanism, and vice versa.

class. Those individuals who are older with low education and low social class are more likely to be associated with cosmopolitanism. It may be that these individuals were integrated into a population which was oriented toward a cosmopolitan social structure and that, for this reason, they were influenced by characteristics of the general population.

INTER-RELATIONSHIP AMONG SOCIODEMOGRAPHIC VARIABLES/ HEALTH ORIENTATION AND HEALTH BEHAVIOR VARIABLES

Tables XVI through XVIII present the zero order correlations between the sociodemographic variables and health orientation/health behavior variables.

Correlations between the sociodemographic variables and health orientation variables are shown in Table XVI. Sex is unrelated to disease knowledge but significantly correlated with dependency in illness and skepticism of medical science. Men are more likely to show more dependency in illness and more skepticism of medical science. Age is unrelated to disease knowledge but positively correlated with dependency in illness and negatively correlated to skepticism of medical science. The older individuals show more dependency in illness, while younger individuals show more skepticism of medical science. Education is significantly correlated with disease knowledge , dependency in illness, and skepticism of medical science. Those individuals with higher levels of education show more disease knowledge, higher dependency in illness and higher skepticism of medical science. SES is significantly correlated with disease knowledge

and skepticism of medical science but unrelated to dependency in illness. Individuals of higher social class status are more likely to be knowledgeable about disease and more skeptical of medical science.

TABLE XVI

CORRELATIONS BETWEEN SOCIODEMOGRAPHIC VARIABLES AND HEALTH ORIENTATION VARIABLES

Health Orientation Variables	Sociodemographic Variables			
	Sex	Age	Ed.	SES
Disease Knowledge	.020	.009	.109***	-.078***
Dependency in Illness	-.034*	.033*	.049**	-.010
Skepticism of Medical Science	-.041*	-.062**	.114**	-.056**

*Significant at .05 level
**Significant at .01 level
***Significant at .001 level

Correlations between the sociodemographic variables and health beliefs/behavior variables are given in Table XVII. Sex is significantly associated with preventive health orientation and the use of nonscientific self-treatment, but unrelated to the use of nonscientific practitioners. Women show a high proportion of preventive health orientation and use of nonscientific self-treatment. Age is significantly correlated with health beliefs and behavior variables. Younger individuals show greater orientation toward preventive health care and more use of nonscientific

TABLE XVII

CORRELATIONS BETWEEN SOCIODEMOGRAPHIC VARIABLES AND HEALTH BELIEFS AND BEHAVIOR VARIABLES

Health Beliefs and Behavior Variables	Sociodemographic Variables			
	Sex	Age	Ed.	SES
Preventive Health Orientation	.153***	-.108***	.281***	-.172***
Use of Nonscientific Self-Treatment	.048**	-.059**	.062***	.000
Use of Nonscientific practitioners	-.010	.043*	-.048**	.032

*Significant at .05 level
**Significant at .01 level
***Significant at .001 level

self-treatment. Older individuals show a higher propensity to utilize nonscientific practitioners.

Education is also correlated with health beliefs and behavior variables. Those individuals with higher education tend to show a higher proportion of preventive health orientation, a higher use of nonscientific self-treatment, while those with low education tend to use nonscientific practitioners. Socioeconomic status is significantly and strongly correlated with preventive health behavior. Those individuals in higher social classes are more likely to show a higher proportion of preventive health orientation. However, SES is not related to nonscientific self-treatment or the use of nonscientific practitioners.

Correlations between the sociodemographic variables and patterns of utilization variables are presented in Table XVIII.

TABLE XVIII

CORRELATIONS BETWEEN SOCIODEMOGRAPHIC VARIABLES AND HEALTH SERVICES UTILIZATION VARIABLES

Patterns of Utilization Variables	Sociodemographic Variables			
	Sex	Age	Ed.	SES
Face-to-Face Contact	.004	.068***	-.006	-.009
Emergency Room Visits	-.141***	-.172***	.013	.054**
Unscheduled Visits	-.189***	0.169***	.028	.043*

*Significant at .05 level
**Significant at .01 level
***Significant at .001 level

Sex is unrelated to face-to-face contacts but significantly associated with emergency room visits and unscheduled visits. Men are more likely to show a higher proportion of emergency room visits and unscheduled visits. Age is significantly correlated with patterns of utilization variables. Older individuals show a larger proportion of face-to-face contacts, but the younger individuals are more likely to show a higher proportion of emergency room and unscheduled visits. Education is unrelated to patterns of utilization variables. SES is unrelated to face-to-face contacts but is significantly associated with emergency room and unscheduled visits. Lower social class individuals show a larger proportion of emergency room and unscheduled visits.

In general terms, sociodemographic variables are significantly related to many of the health orientation/ health behavior variables. Hence, these results provide justification for sociodemographic variables being included in the analysis as control variables.

RESEARCH HYPOTHESES

Relationship of Cosmopolitanism to Health Orientation and Health Behavior

Health Orientation. Table XIX displays zero-order Pearson Correlations between cosmopolitan measures and the individual's health orientation variables. Family authority is not related to disease knowledge or skepticism of medical science but is significantly correlated with dependency in illness. Those who exhibit high family authority show less dependency in illness. Kinship solidarity is not related to disease knowledge or skepticism of medical science but is correlated with dependency in illness. Those individuals who report high kinship solidarity show a higher dependency during illness. Friendship solidarity is significantly correlated with health orientation variables. Those individuals who belong to the higher friendship solidarity structure are more likely to show a higher disease knowledge, a higher dependency in illness and more skepticism of medical science. Community integration is unrelated to skepticism of medical science but is significantly correlated with

disease knowledge and dependency in illness. Those individuals who belong to a higher community integration structure are more likely to report a higher disease knowledge and a higher dependency in illness.

1. Is the more cosmopolitan individual more likely to be more knowledgeable of disease than the less cosmopolitan individual?

In terms of the relationship between cosmopolitanism and disease knowledge, Table XIX reveals that those characterized as more cosmopolitan are likely to be less knowledgeable about disease than those with less cosmopolitan characteristics. Also, as is indicated by the data reported in the Appendix (Tables C and L), the tendency for those with more cosmopolitan characteristics is to report less disease knowledge than those with less cosmopolitan characteristics. In short, with regard to the relationship between cosmopolitanism and disease knowledge, it can be said that the tendencies are not in the expected direction and do not support the hypothesis.

2. Is the more cosmopolitan individual less likely to show dependency in illness than the less cosmopolitan individual?

Table XIX shows that there is no significant relationship between groups characterized as cosmopolitan and dependency in illness, as does the data reported in the Appendix (Tables K and L). In short there is no relationship between cosmopolitanism and dependency in illness.

3. Is the more cosmopolitan individual more likely to be more skeptical about medical care than the less cosmopolitan individual?

TABLE XIX

CORRELATIONS BETWEEN COSMOPOLITAN MEASURES AND HEALTH ORIENTATION VARIABLES

Health Orientation Variables	Components of Cosmopolitan Index				Index of Cosmopolitanism [a]
	Family Authority	Kinship Solidarity	Friendship Solidarity	Community Integration	
Disease Knowledge	-.035	.016	.050**	.100**	-.043*
Dependency in Illness	-.036*	.034*	.046*	.081***	-.027
Skepticism of Medical Science	-.016	-.019	.039*	-.032	.028

*Significant at .05 level
**Significant at .01 level
***Significant at .001 level

[a] The components of the Index of Cosmopolitanism are combined in a manner such that low scores on the components result in high scores on cosmopolitanism, and vice versa.

In terms of the relationship between cosmopolitanism and skepticism of medical science, Table XIX indicates no significant relationship between cosmopolitanism and skepticism (as do Tables E and L in the Appendix).

In sum, only disease knowledge is related to cosmopolitanism. Dependency in illness and skepticism of medical science are not related to cosmopolitanism.

Health beliefs and behavior. Table XX displays zero order correlations between cosmopolitan measures and the individual's health beliefs and behavior. Family authority is unrelated to preventive health orientation and the use of nonscientific practitioners but significantly correlated with nonscientific self-treatment. Those who belong to families characterized by high authority report a larger proportion of nonscientific self-treatment.

Kinship solidarity is unrelated to nonscientific self-treatment but is significantly correlated with preventive health orientation and the use of nonscientific practitioners. Those individuals in a higher kinship solidarity structure are likely to report a greater preventive health orientation and more use of nonscientific practitioners.

Friendship solidarity is unrelated to nonscientific self-treatment and the use of nonscientific practitioners but is significantly correlated with preventive health orientation. Those individuals who belong to a higher friendship solidarity structure are more likely to report a higher proportion of preventive health behavior. Community integration

TABLE XX

CORRELATIONS BETWEEN COSMOPOLITAN MEASURES AND HEALTH BELIEFS/BEHAVIOR VARIABLES

Health Beliefs/ Behavior Variables	Components of Cosmopolitan Index				Index of Cosmopolitanism [a]
	Family Authority	Kinship Solidarity	Friendship Solidarity	Community Integration	
Preventive Health Orientation	-.024	.053**	.131***	.170***	-.131***
Nonscientific Self-Treatment	.052**	-.014	.022	.083***	-.063**
Use of Nonscientific Practitioners	.016	.034*	-.004	-.021	-.005

*Significant at .05 level
**Significant at .01 level
***Significant at .001 level

[a]The components of the Index of Cosmopolitanism are combined in a manner such that low scores on the components result in high scores on cosmopolitanism, and vice versa.

is significantly correlated with preventive health orientation and nonscientific self-treatment. Those individuals with a higher community integration are more likely to engage in preventive health behavior and more nonscientific self-treatment. Community integration is unrelated to the use of nonscientific practitioners.

4. Is the more cosmopolitan individual more likely to show more preventive health orientation than the less cosmopolitan individual?

5. Is the more cosmopolitan individual less likely to use nonscientific self-treatment and nonscientific practitioners than the less cosmopolitan individual?

Table XX indicates that cosmopolitanism is negatively correlated with preventive health orientation and nonscientific self-treatment but not significantly related to the use of nonscientific practitioners. Those individuals characterize as more cosmopolitan are likely to show a lower proportion of preventive health orientation and nonscientific self-treatment than those individuals characterized as less cosmopolitan. (The data reported in Tables F and M in the Appendix confirm these results). The latter is in the direction hypothesized but the former is not.

Patterns of Utilization. Table XXI displays correlations between cosmopolitan measures and the individual's patterns of utilization. Family authority is not related to face-to-face contacts or emergency room visitis but is significantly related to unscheduled visits. The higher the score on family authority, the larger the proportion of emergency room

visits. Friendship solidarity is unrelated to health utilization variables. Community integration is not related to face-to-face contacts or to unscheuled visits but is significantly correlated with emergency room visits. The higher the community integration, the lower the proportion of emergency room visits.

6. Is the more cosmopolitan individual more likely to use more impersonal (i.e., telephone rather than face-to-face) approach in seeking medical care and to use care through scheduling of appointments rather than on a nonscheduled (i.e., walking in for care without an appointment) basis?

Cosmopolitanism is unrelated to patterns of utilization variables (which is also indicated by the data reported in Tables I, J, K, and N in the Appendix).

In general, these results suggest that to some extent social group characteristics of family authority, kinship solidarity, friendship solidarity, and community integration are individually related to many of the health orientation and health behavior variables. However, this is generally not the case with regard to the relationship between cosmopolitanism and health orientation/health behavior. Only three out of nine variables (disease knowledge, preventive health orientation and nonscientific self-treatment) are related to cosmopolitanism, and only one of these relationships (with nonscientific self-treatment) was in the predicted direction.

TABLE XXI

CORRELATIONS BETWEEN COSMOPOLITAN MEASURES AND PATTERNS OF UTILIZATION VARIABLES

Patterns of Utilization Variables	Components of Cosmopolitan Index				Index of Cosmopolitanism [a]
	Family Authority	Kinship Solidarity	Friendship Solidarity	Community Integration	
Face-to-Face Contacts	.003	.000	-.003	.019	-.004
Emergency Room Visits	.019	.034*	.017	-.054**	-.017
Unscheduled Visits	.038*	-.017	.004	-.034	-.011

*Significant at .05 level
**Significant at .01 level
***Significant at .001 level

[a] The components of the Index of Cosmopolitanism are combined in a manner such that low scores on the components result in high scores on cosmopolitanism, and vice versa.

Relationship Between Cosmopolitanism and Health Orientation/ Health Behavior Variables Controlling for Sociodemographic Variables.

Tables XXII through XXIV present the correlations between health orientation and health behavior while controlling for the effect of sociodemographic variables.

Table XXII shows the correlations between cosmopolitanism and health orientation variables while controlling for the effect of sex, age, education, and social class. As Table XXII reveals, disease knowledge continues to be related to cosmopolitanism. Those individuals characterized as belonging to the high cosmopolitan structure are more likely to show less disease knowledge than those individuals characterized as less cosmopolitan even when the effects of sex, age, and SES are controlled for.

TABLE XXII

CORRELATIONS BETWEEN COSMOPOLITANISM AND HEALTH ORIENTATION VARIABLES CONTROLLING FOR SOCIODEMOGRAPHIC VARIABLES (Partial Correlations)

Health Orientation Variables	Sociodemographic Variables			
	Sex	Age	Education	SES
Disease Knowledge	-.043*	-.044*	-.031	-.037*
Dependency in Illness	-.027	-.030	0.021	-.026
Skepticism of Medical Science	.026	.032	.039*	.030

*Significant at .05 level
**Significant at .01 level
***Significant at .001 level

Table XXIII presents the correlations between cosmopolitanism and health beliefs/behavior variables while controlling for the effect of sex, age, education and social class. Preventive health behavior continues to be significantly correlated with higher cosmopolitanism. Those individuals characterized by higher cosmopolitanism are more likely to report less preventive health behavior than those individuals characterized as less cosmopolitan even when the effect of sex, age, education, and SES is controlled for. Also, nonscientific self-treatment is significantly correlated with cosmopolitanism. Those individuals characterized by higher cosmopolitanism report less nonscientific self-treatment utilization than individuals characterized as less cosmopolitan even when the effect of sex, age, education and SES is controlled.

Table XXIV presents the correlations between cosmopolitanism and health services utilization variables, while controlling for the effect of sociodemographic variables. As Table XXIV reveals, health services utilization variables continue to not be sensitive to the degree of cosmopolitanism when the effect of sex, age, education and social class is controlled.

Summarizing these results, cosmopolitanism, as measured in this study, tends not to be related to the dependent variables as hypothesized. That is, most correlations are low and not statistically significant and/or are in the direction opposite to that predicted.

TABLE XXIII

CORRELATIONS BETWEEN COSMOPOLITANISM, HEALTH BELIEFS AND BEHAVIOR VARIABLES CONTROLLING FOR SOCIODEMOGRAPHIC VARIABLES

Health Beliefs/ Behavior Variables	Control Variables			
	Sex	Age	Education	SES
Preventive Health Orientation	-.132***	-.127***	-.104***	-.120***
Nonscientific Self-Treatment	-.063**	-.057**	-.048**	-.063**
Use of Nonscientific Practitioners	-.005	-.010	-.011	-.008

*Significant at .05 level
**Significant at .01 level
***Significant at .001 level

TABLE XXIV

CORRELATIONS BETWEEN COSMOPOLITANISM AND HEALTH SERVICES UTILIZATION VARIABLES CONTROLLING FOR SOCIODEMOGRAPHIC VARIABLES

Patterns of Utilization Variables	Control Variables			
	Sex	Age	Education	SES
Face-to-Face Contacts	-.004	-.010	-.004	-.003
Emergency Room Visits	-.018	.000	-.016	-.022
Unscheduled Visits	-.012	.000	-.008	-.015

*Significant at .05 level
**Significant at .01 level
***Significant at .001 level

CHAPTER IV

SUMMARY AND CONCLUSION

In this study, an attempt has been made to examine the relationship between social structure and health or medical variables within a framework which linked cosmopolitanism to health and medical orientation. Specifically, this study has addressed the following hypotheses:

1. The more cosmopolitan individual is more likely to be more knowledgeable about disease than the less cosmopolitan individual.

2. The more cosmopolitan individual is less likely to show dependency during illness than the less cosmopolitan individual.

3. The more cosmopolitan individual is more likely to be skeptical about medical care than the less cosmopolitan individual.

4. The more cosmopolitan individual is more likely to show more preventive health orientation than the less cosmopolitan individual.

5. The more cosmopolitan individual is less likely to use nonscientific self-treatment and nonscientific practitioners than the less cosmopolitan individual.

6. The more cosmopolitan individual is more likely to use a more impersonal (i.e., telephone rather than face-to-face) approach in seeking medical care, and to use care through scheduling of appointments rather than on a non-scheduled basis (i.e., walking in for care without an appointment or showing up in the emergency room) than the less cosmopolitan individual.

In summary, the hypotheses are not generally supported. The only hypothesis which appears to be supported is in the prediction of the use of nonscientific self-treatment.

Individuals who belong to social structure characterized as higher cosmopolitan were more likely to be less oriented toward the use of nonscientific self-treatment.

Sociodemographic variables (sex, age, education and SES) tended to be related to medical orientations. Sex is significantly related to dependency in illness, skepticism of medical science, preventive health orientation, the use of nonscientific treatment, emergency room visits and unscheduled visits. Men were more likely to show more dependency in illness, more skepticism of medical science, and showed a higher proportion of emergency room and unscheduled visits, while women were more likely to be oriented toward preventive health behavior and the use of nonscientific self-treatment.

Age is significantly related to dependency in illness, skepticism of medical science, preventive health orientation, the use of nonscientific self-treatment, the use of nonscientific practitioners, face-to-face, emergency room visits, and unscheduled visits. Older individuals showed more dependency in illness, a higher propensity to utilize nonscientific practitioners, a larger proportion of face-to-face contacts, while younger individuals were likely to be skeptical of medical science, more oriented toward preventive health behavior, tend to use nonscientific self-treatment, showed a higher proportion of emergency room visits and unscheduled visits.

Education is significantly related to disease knowledge, dependency in illness, skepticism of medical science, preventive health orientation, the use of nonscientific self-

treatment and the use of nonscientific practitioners. Those higher in education were found to be more likely to be higher in disease knowledge, dependency in illness, skepticism of medical science, and preventive health orientation, but those with low education were likely to use nonscientific practioners.

SES is significantly related to disease knowledge, skepticism of medical science, preventive health orientation, emergency room visits and unscheduled visits. Those individuals higher in social class were found to be more knowledgeable about disease, more skeptical of medical science, and more oriented toward preventive health behavior, while those in lower social class were more likely to show a higher proportion of emergency room and unscheduled visits.

The findings have shown that some of the components of cosmopolitanism were related to some health orientation/ behavior variables. Family authority is significantly related to dependency in illness, nonscientific self-treatment and unscheduled visits. Individuals who belong to family structure characterized by high authority were more likely to show less dependency in illness, more propensity to use nonscientific self-treatment and a higher proportion of unscheduled visits.

Kinship is significantly related to dependency in illness, preventive health orientation, the use of nonscientific practitioners and emergency room visits. Individuals who belong to kinship structure characterized by high

solidarity were more likely to show higher dependency in illness, preventive health behavior, the use of nonscientific practitioners and emergency room visits.

Friendship solidarity is significantly related to disease knowledge, dependency in illness, skepticism of medical science, and preventive health orientation. Individuals who belong to friendship structure characterized by high solidarity were more likely to be higher in disease knowledge, dependency in illness, skepticism of medical science and preventive health orientation.

Community integration is significantly related to disease knowledge, dependency in illness, skepticism of medical science, preventive health orientation, nonscientific self-treatment, and emergency room visits. Individuals who belong to community structure characterized by high integration were more likely to be higher in disease knowledge, dependency in illness, preventive health orientation, nonscientific self-treatment and emergency room visits.

Why was the dimension of cosmopolitanism not helpful in explaining the patterns of medical orientation? This might be related to three factors:

1. The theory--the concepts used to define both social structure and medical orientations might be wrongly conceptualized.

2. The measures--the measures might be inadequate and imprecise.

3. The study population--the study reports findings of an urban population, which may restrict its external validity. As a result, the characteristics of the population may not be heterogeneous enough to be explained in the variation in health orientation and behavior. Consequently, the characteristics of the population may only be representative of this area. Thus, the findings reflect the population of the study area and the respondents' characteristics.

In the complex urban society, the people may not limit their social participation to the micro level; rather, they may extend their social participation to the macro level. In this case, the person may be attached to significant others, while at the same time being integrated into a pluralistic society. Consequently, he is primarily dominated by the characteristics of the integrative population. Hence, for further analysis, employment of refined conceptualizations and measurements of social integration and health orientation and behavior will provide a useful framework for research and better understanding of the relationship between social and medical factors in a developed society.

IMPLICATIONS

Although the concept of cosmopolitanism may not be very helpful in explaining medical orientation in the developed countries, it may be employed as a major determinant of medical/health orientation and behavior in developing countries.

In the last few decades, modernization of medical care has become one of the primary goals for some developing countries. Thus for many developing countries, modernization means stress on scientific medicine and limitations of their indigenous traditional medicine or nonscientific medicine (Lee, 1981). The future of modern scientific medicine can be distinguished currently by

> its orientation as a biological science and the high level of its application of experimental science. Disease is seen as the result of natural phenomena such as may be caused by changes brought about by microbiological agents, chemicals, carcinogenic agents, metabolic imbalances, trauma, chromosomal combinations, and stress. The consequences of these processes are conceived of in terms of changes at the cellular level. The end result has thus been a depersonalization of the sick person who is no longer seen as a 'total human.' (Chen, 1981, p. 130)

Nonscientific medicine, in contrast

> refers to those beliefs and practices founded in tradition and which are generally accepted uncritically by the people. That is, these practices are continued from one generation to another largely, 'things have always been done this way,' and because the people have faith in the beliefs. The fact that these beliefs and practices are often associated with the supernatural lends a moral credence or, more strongly, a moral imperative to their appropriateness. (Coe, 1970, p. 125).

In fact, many developing countries have introduced modern scientific medicine, while nonscientific medical practices are left alone and are not incorporated into the modern medicine (Lee, 1981). For example, the less cosmopolitan persons (e.g., more traditional, close, less attached to the outside world) are likely to be less scientifically oriented toward health and medical care. As a result, individuals who belong to social structure characterized by less cosmopolitanism might suffer from the possibility of having inadequate medical care. In addition, a potential conflict is more likely to occur between the patients related to less cosmopolitan social structure and the physicians, for the latter possess a high body of theoretical knowledge, which is highly technical and might be incomprehensible to the less cosmopolitan individuals. King (1958) characterized this as a matter of "cultural lag." Hence, the desire of less cosmopolitan individuals to seek medical care must be accounted for by expectations of inappropriate utilization of medical services and conflict between these patients and medical providers.

As the literature shows, the inappropriate utilization of medical services and resistance to modern medical programs were more likely to appear when these programs were introduced into underdeveloped areas of the world (Paul, 1955). Therefore, public health programs which were introduced to American Indians in the Southwestern part of the United States had to

be adjusted to their local beliefs and customs (Adair, 1960). Lower class and minority groups are considered the source of inappropriate utilization of medical services (Cornely, 1962). Also, farmers in the traditional and rural areas were found to resist the new medical programs (Hassinger, 1958).

In terms of the individual's response to illness and medical care, many studies have shown that the more the individual is oriented toward nonscientific approaches to health and medical care, the more likely he tends to be to seek advice for his health problems from laymen rather than medical professionals (Freidson, 1960). Those individuals also were less likely to seek immediate diagnosis for their symptoms (Kutner, 1961), more likely to use folk medicine and self-treatment (Berle, 1958), more likely to be concerned about symptoms and react strongly to pain (Zborowski, 1952), more likely to seek immediate relief for chronic disease (Jeffreys, 1957), more likely to use nonscientific practitioners (Steiner, 1959), less likely to adjust to the hospital regulations (Coser, 1950), less likely to participate in the health programs (Friedson, 1960), and less likely to be informed about health and medical care (Koos, 1954). In short, these studies have provided an important data base on the orientation of the less cosmopolitan groups and individuals toward medical care.

In developing societies, the problem of communication between medical professionals and the patients appears

to contribute to the widening gap between scientific and popular approaches to illness and medical care, because doctors seem less eager to inform their patients about health and medical care. They would rather provide medical care in terms of long established and institutionalized ways which partially maintain health and cope with disease (Colson, 1971). For example,

> There is usually very little communication during medical visits, even those which last longer than the typical one-minute encounter. Generally speaking, the patient seems very reluctant to ask questions. Several doctors indicated . . . that it was not necessary to explain matters to patients ('it's none of their business,' said one intern laughing) and some consider it detrimental. One doctor commented, 'If we express any doubt to the patient, they will no longer have confidence in what we are doing, it is better just to give the medicine and not discuss it.' Patients often seem to misunderstand directions and personnel are too rushed to make sure that they have been understood. (Lasker, 1981, p. 161)

Thus, with regard to modern medical programs, the less cosmopolitan segments of the developing nations are more likely to constitute a major source of inappropriate utilization of medical services. What might be needed for the limitation of the problem is the recognition of the need to organize public health programs and services to be available and completely integrated into all segments of the society. This can be implemented not only by focusing on the health care measures which include health promotion, prevention, treatment and rehabilitation, but also by other considerations such as:

1. All the segments of the society, particularly the isolated ones, should be motivated and involved in decision-making and must participate in the health programs (Twumasi, 1981).

2. Health education should be available for all the segments of the public as much as possible, not just simply presenting the facts of disease for particular groups.

3. Social and cultural as well as psychological factors, which may constrain the individual's behavior in seeking medical care, should be introduced to medical practitioners along with the disease factors. Thus, the patient would be treated as a "total human."

4. Medical professionals have to modify the technicality of language and the procedures which they use in dealing with the patients. Medical professionals have taken for granted that the patients come to the medical clinic because they have physical problems. They also assume that the patients have the ability to respond and describe their symptoms, to understand medical terms and diagnosis, to carry out treatment, to follow up referrals and to understand the hospital regulations. However, these assumptions may not be certain among the less cosmopolitan patients in developing nations, therefore,

5. Patients should be informed about health and disease. The less the clients are informed about health, the less likely they are to be knowledgeable about disease and

medical care (Hyman, 1970). Further, more awareness and positive attitudes toward vaccine programs were found among people who were better informed by the physician about the effectiveness of these programs (Cassel, 1963; Ianni, et al., 1960; Seasy, 1958).

In this study, Table H (see Appendix) shows that the more the individuals are knowledgeable about symptoms and the more informed they are about health, the less likely they are to use home remedies. In short, what is required is that clients have to be educated and informed about health and disease as well as the necessary bureaucratic organizations and procedures so that they will be able to evaluate symptoms through the use of scientific approaches and to make rational choices as to when and how to seek medical care.

Finally, further research employing the concept of cosmopolitanism should be attempted to look more closely and systematically to the extent to which social networks determine the individual's illness behavior and medical care orientation. Such research should be relevant to developing nations where an individual's behavior in response to his health needs is likely to be constrained by social structure factors to the detriment of health and well being.

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APPENDIX

TABLE A

DISTRIBUTION OF RESPONDENTS ON THE COMPOSITE INDEX OF KINSHIP SOLIDARITY, FRIENDSHIP SOLIDARITY AND COMMUNITY INTEGRATION

	N	%
Low	665	27.7
Medium	922	38.5
High	810	33.8
Total	2397	(100.0)

TABLE B

DEVELOPMENT OF COSMOPOLITANISM INDEX, INCLUDING FAMILY AUTHORITY (for married persons)

Family Authority	Cosmopolitanism (3 Components)			
	Low	Medium	High	Total
	(A)	(B)	(C)	
Low	25.8	25.8	25.2	25.6
	(N=144)	(N=201)	(N=158)	(N=503)
Medium	(D)	(F)	(G)	
	50.6	49.4	52.4	50.7
	(N=283)	(N=385)	(N=328)	(N=996)
High	(H)	(I)	(J)	
	23.6	24.9	22.4	23.7
	(N=132)	(N=194)	(N-140)	(N-466)
Total	28.4	39.7	31.9	
	(N=559)	(N=780)	(N=626)	1965

Cosmopolitanism index: Low = D + H + I
Middle = A + F + J
High = B + C + G

TABLE C

RELATIONSHIP BETWEEN COSMOPOLITANISM AND DISEASE KNOWLEDGE

Disease Knowledge	Cosmopolitanism			
	Low	Medium	High	Total
Low	36.7	40.3	41.9	(N=935)
High	63.3	59.7	58.1	(N=1399)
Total	(N=698)	(N=791)	(N=835)	
	30.0	34.0	35.9	

G = .071

$X^2 = 4.496$, p = .106

TABLE D

RELATIONSHIP BETWEEN COSMOPOLITANISM AND DEPENDENCY IN ILLNESS

Dependency in Illness	Cosmopolitanism			
	Low	Medium	High	Total
Low	23.4	23.1	24.1	(N= 545)
Medium	45.5	47.7	49.0	(N=1139)
High	31.1	24.2	26.9	(N= 631)
Total	(N-701)	(N=788)	(N=820)	(N=2315)

G = .036

X^2 = 10.523, p = .032

TABLE E

RELATIONSHIP BETWEEN COSMOPOLITANISM AND SKEPTICISM OF MEDICAL SCIENCE

Skepticism of Medical Science	Cosmopolitanism			
	Low	Medium	High	Total
Low	49.2	45.1	45.9	(N=1064)
High	50.8	54.9	54.1	(N=1217)
Total	(N=691) 30.3	(N=771) 33.8	(N=819) 35.9	(N=2281)

G = .041

X^2 = 2.601, p = .259

TABLE F

RELATIONSHIP BETWEEN COSMOPOLITANISM AND PREVENTIVE HEALTH BEHAVIOR

Preventive Health Orientation	Cosmopolitanism			
	Low	Medium	High	Total
Low	18.4	21.3	29.1	(N= 546)
Medium	38.6	40.3	41.5	(N= 944)
High	42.9	38.4	29.4	(N= 857)
Total	(N=706) 30.1	(N=797) 34.0	(N=844) 36.0	(N=2347)

G = .178

X^2 = 42.179, p = .000

TABLE G

RELATIONSHIP BETWEEN COSMOPOLITANISM AND NONSCIENTIFIC SELF-TREATMENT

Nonscientific Self-Treatment	Cosmopolitanism			
	Low	Medium	High	Total
Low	33.3	35.4	39.4	(N= 846)
Medium	35.6	38.3	35.8	(N= 855)
High	31.7	26.3	24.9	(N= 636)
Total	(N=705) 30.2	(N=791) 33.8	(N=841) 36.0	(N=2337)

G = .084

X^2 = 10.839, p = .028

TABLE H

RELATIONSHIP BETWEEN COSMOPOLITANISM AND USE OF NONSCIENTIFIC PRACTITIONERS

Use of Nonscientific Practitioners	Cosmopolitanism			
	Low	Medium	High	Total
Low	81.4	81.9	81.9	(N=1920)
High	18.6	18.1	18.1	(N= 429)
Total	(N=708) 30.1	(N=797) 33.9	(N=844) 35.9	(N=2349)

G = .011

X^2 = .100, p = .951

TABLE I

RELATIONSHIP BETWEEN COSMOPOLITANISM AND FACE-TO-FACE VISITS

Face-to-Face Visits		Cosmopolitanism			
		Low	Medium	High	Total
Low	1	11.3	14.4	13.4	(N= 290)
	2	30.6	28.9	29.2	(N= 654)
	3	36.8	33.2	34.1	(N= 767)
High	4	21.2	23.6	23.2	(N= 504)
Total		(N=673) 30.4	(N=745) 33.6	(N=797) 36.0	(N=2215)

G = -.002

X^2 = 5.529, p = .478

TABLE J

RELATIONSHIP BETWEEN COSMOPOLITANISM AND EMERGENCY ROOM VISITS

Emergency Room Visits	Cosmopolitanism			
	Low	Medium	High	Total
Low	46.1	49.2	47.6	(N=1081)
Medium	26.5	22.1	27.1	(N= 502)
High	27.4	28.7	25.3	(N= 614)
Total	(N=690) 30.4	(N=770) 34.0	(N=807) 35.6	(N=2267)

G = .015

X^2 = 7.147, p = .129

TABLE K

RELATIONSHIP BETWEEN COSMOPOLITANISM AND UNSCHEDULED VISITS

Unscheduled Visits		Cosmopolitanism			
		Low	Medium	High	Total
Low	1	15.6	15.1	17.2	(N= 355)
	2	19.3	20.2	19.1	(N= 455)
	3	19.8	19.7	18.6	(N= 429)
High	4	15.5	14.4	15.8	(N= 338)
Total		(N=673) 30.3	(N=757) 34.1	(N=790) 35.6	(N=2220)

G = .013

X^2 = 2.611, p = .956

TABLE L

COMPARISONS OF MEANS ON HEALTH ORIENTATION VARIABLES FOR COSMOPOLITANISM

Health Orientation Variables	Cosmopolitanism				
	Low	Medium	High	F	Sig. of Diff.
Disease Knowledge	1.633 (N=698	1.597 (N=791)	1.581 (N-835)	2.249	.105
Dependency in Illness	2.077 (N=701)	2.011 (N-788)	2.028 (N=826)	1.686	.185
Skepticism of Medical Science	1.508 (N=691)	1.549 (N-771)	1.541 (N-819)	1.350	.259

TABLE M

COMPARISON OF MEANS ON HEALTH BELIEFS AND BEHAVIOR VARIABLES FOR COSMOPOLITANISM

Health Beliefs and Behavior Variables	Cosmopolitanism				
	Low	Medium	High	F	Sig. of Diff.
Preventive Health Orientation	2.451 (N=706)	2.171 (N-797)	2.002 (N=844)	21.376	.000
Nonscientific Self-Treatment	1.977 (N=705)	1.909 (N=791)	1.855 (N=841)	4.599	.010
Use of Non-scientific Pracitioners	.187 (N=708)	.181 (N=797)	.181 (N=844)	.049	.951

TABLE N

COMPARISON OF MEANS ON HEALTH SERVICES UTILIZATION VARIABLES FOR COSMOPOLITANISM

Patterns of Utilization Variables	Low	Medium	High	F	Sig. of Diff.
Face-to-Face Contacts	2.681 (N=673)	2.660 (N=745)	2.671 (N=797)	.076	.926
Emergency Room Visits	1.813 (N=690)	1.795 (N=770)	1.777 (N=807)	.343	.709
Unscheduled Visits	3.247 (N=673)	3.254 (N=757)	3.208 (N=790)	.222	.800

TABLE O

CORRELATIONS AMONG THE DISEASE KNOWLEDGE ITEMS

	Lump/ Discolored Skin	Short of Breath	Weight Loss	Cough	Informed
Short of Breath	.259***				
Weight Loss	.172***	.299***			
Persistent Cough	.232***	.271***	.251***		
How Informed About Health	.034*	.002	.063***	.022	
Use Home Remedy	-.045*	-.063***	-.058**	-.044*	.003

*Significant at .05 level
**Significant at .01 level
***Significant at .001 level